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Prokaryotic Cell

Cell which do not have a nuclear membrane and other membrane bound organelles, is called prokaryotic cell.

Occurrence

Prokaryotic cells are placed in kingdom-Monera. These cells are represented by bacteria, cyanobacteria (blue-green algae), mycoplasma or PPLO. Bacteria are the simplest and common most type of organism amongst prokaryotes. They are generally smaller and multiply more rapidly than the eukaryotic cell.

The bacteria are found in almost every place like deep in the soil, human intestine, deep in seawater, etc.

Size

Bacteria tends to vary greatly in size. It normally ranges from 0.3-1.5p.m with some exceptions.

Shape

The four basic shapes of bacteria are bacillus (rod-like), coccus (spherical), vibrio (comma-shaped) and spirillum (spiral). All prokaryotic cells are similar in their organisation although they exhibit a wide variety of shapes and functions.

Components of a Prokaryotic (Bacterial) Cell

A bacterial cell is composed of various components as genetic material, cell envelope, cytoplasm, nucleoid, inclusion bodies, ribosomes, flagella, pili, fimbriae, etc.

Genetic Material

Nucleoid represents the genetic material incase of prokaryotes that is naked, not enveloped by a nuclear membrane. Many bacteria contain a small circular DNA known as plasmid other than the chromosomal or genomic DNA.

These plasmid confer certain unique characters to the bacteria like antibiotic resistance, sex factor, etc.